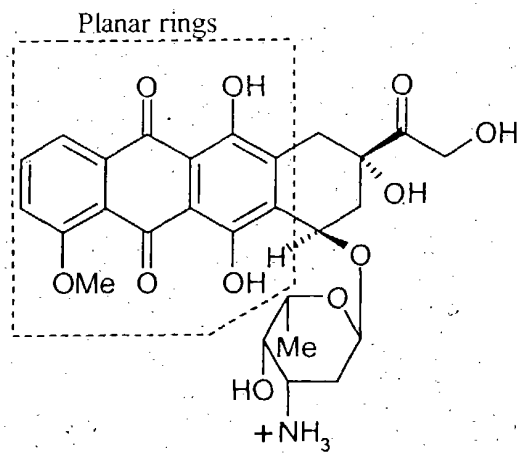
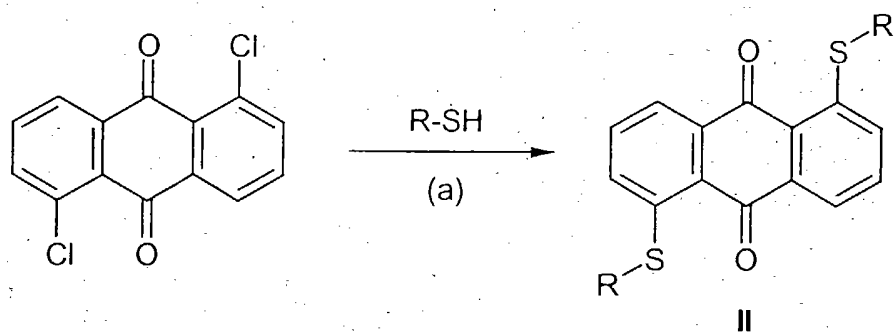


Mitoxantrone (X = OH)
 Ametantrone (X = H)



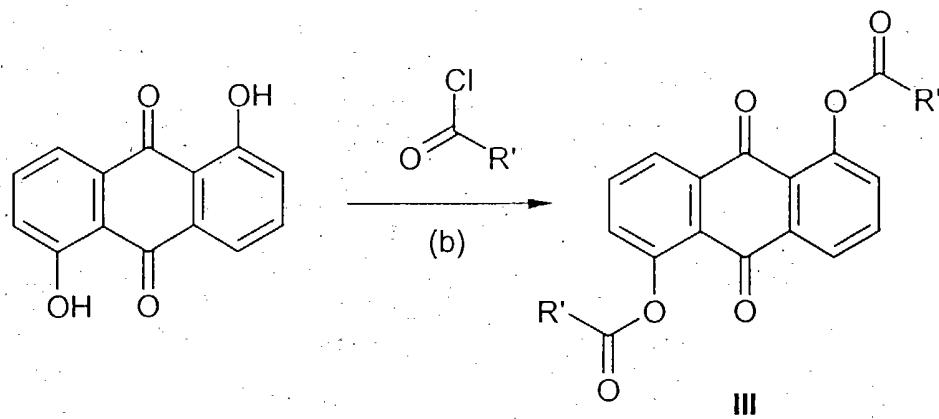
Adriamycin
 + NH₃

FIG. 1



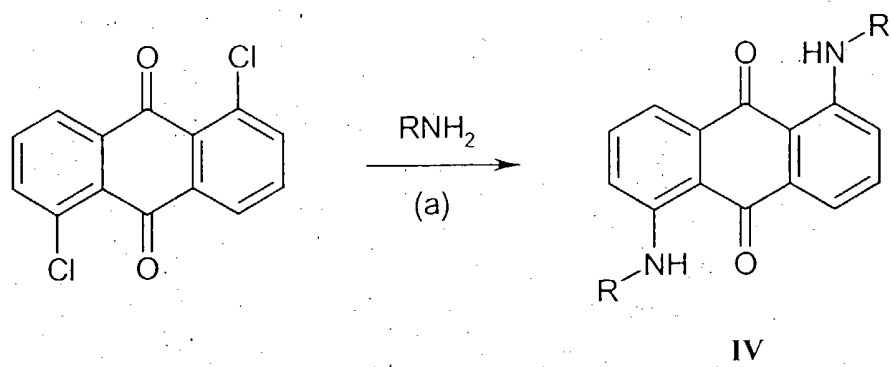
Reagents: (a) Sodium methoxide/methanol; tetrahydrofuran, reflux.

FIG. 2



Reagents: (b) Method A, pyridine; Method B, NaH, THF.

FIG. 3



(a) DMF, heated in the glass mini-reactor..

FIG. 4

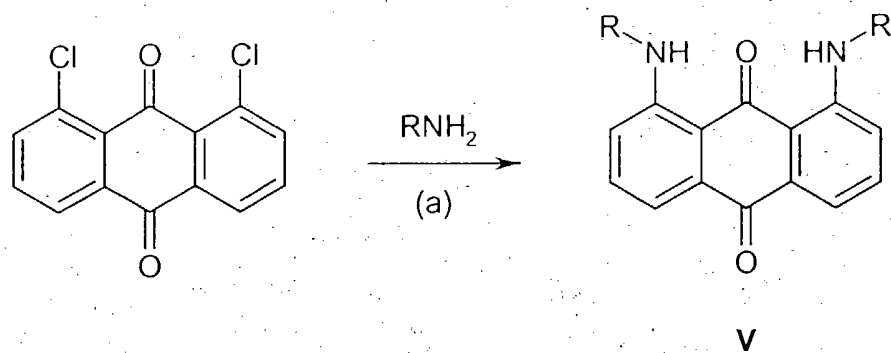


FIG. 5

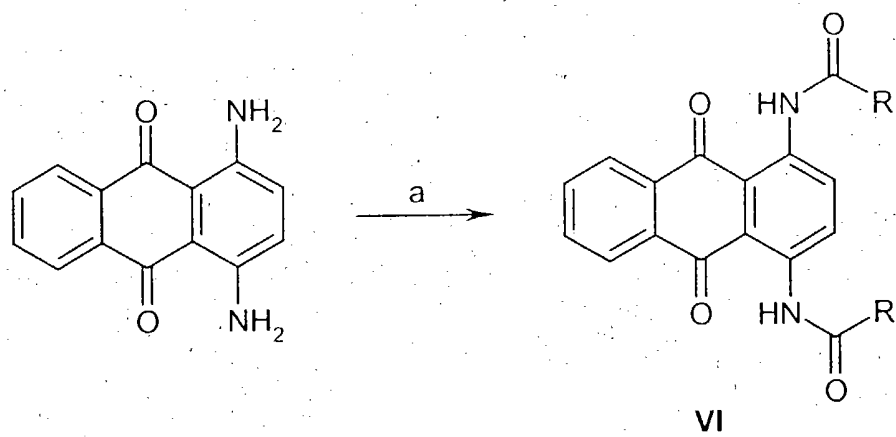


FIG. 6

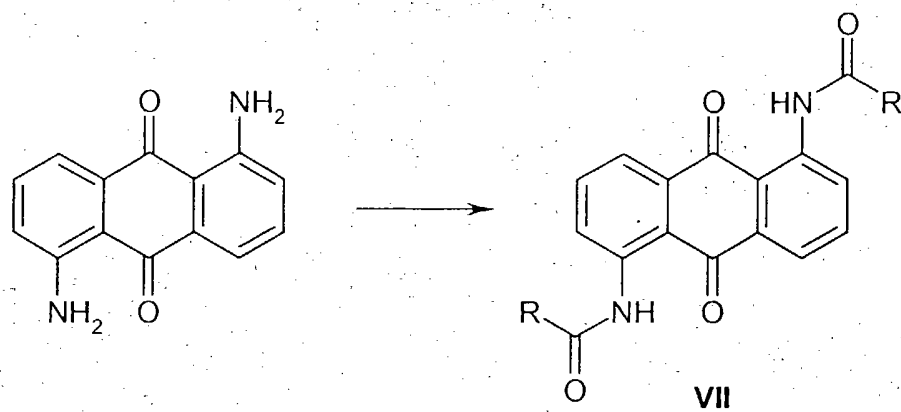


FIG. 7

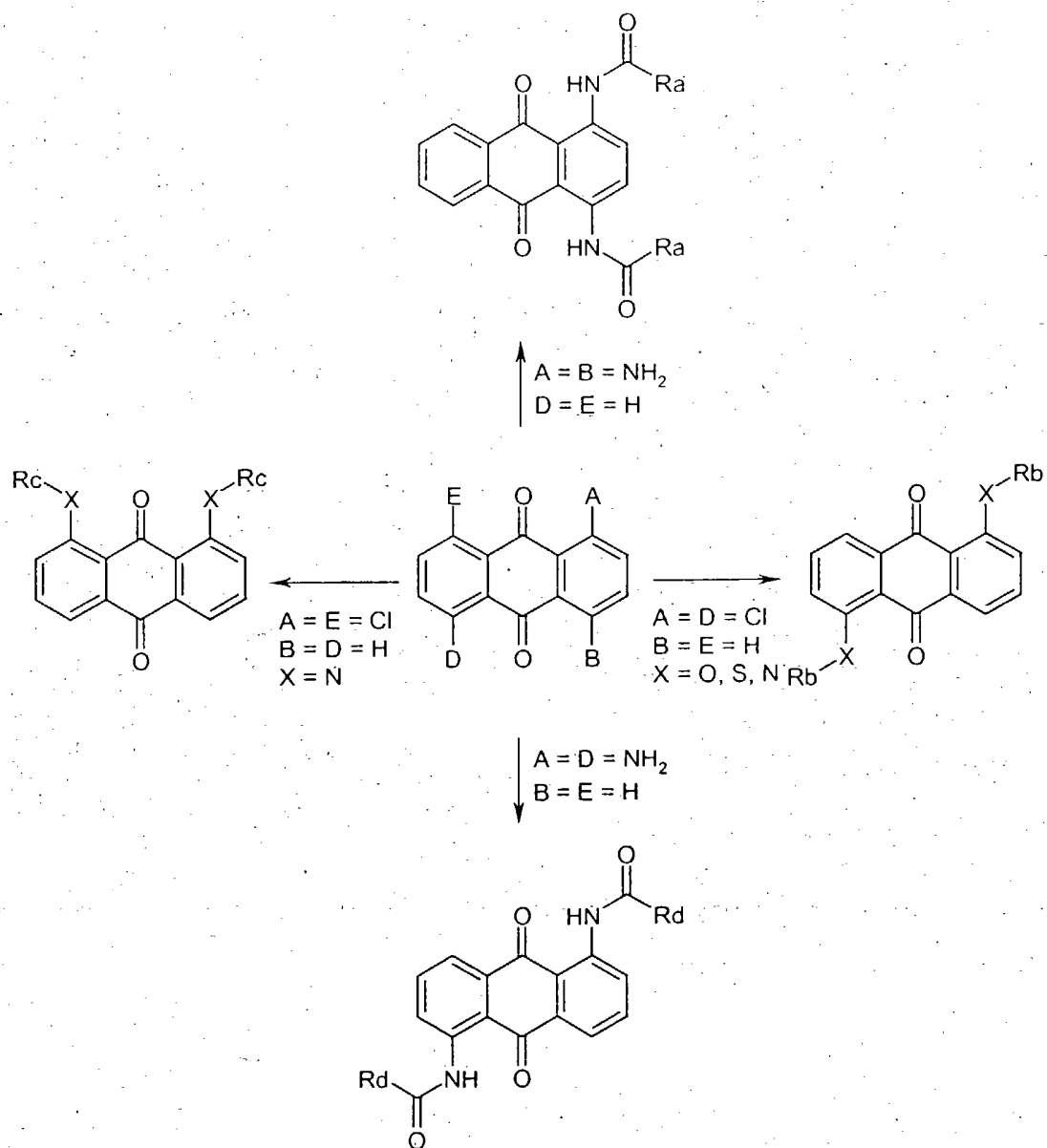


FIG. 8